

WHAT IS CLAIMED IS:

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1. A retransmission control method in a multicast service providing system in which an information delivery apparatus delivers multicast information to radio terminals within a service area of the information delivery apparatus, said method comprising:

(a) determining at least one radio terminal permitted to be placed in retransmission control; and
(b) delivering, when a request for retransmission concerning the multicast information sent by said at least one radio terminal is received by the information delivery apparatus, the multicast information to the radio terminals within the service area.

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2. The retransmission control method as claimed in claim 1, wherein:

the step (a) comprises a step of determining, at the information delivery apparatus, said at least one radio terminal; and

the retransmission control method further comprises a step of notifying said at least one radio terminal that a request for retransmission is permitted.

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3. The retransmission control method as claimed
in claim 1, wherein the step (a) comprises a step of
determining, at each radio terminal, whether its own
terminal is permitted to be placed in retransmission
5 control.

10 4. The retransmission control method as claimed
in claim 1, wherein the step (a) determines a plurality of
radio terminals to be placed in retransmission control.

15 5. The retransmission control method as claimed
in claim 1, wherein:

20 the step (a) comprises a step of grouping radio
terminals in the service area on the basis of unique
information assigned to the radio terminals; and

the step (a) determines at least one radio
terminal on the basis of grouping radio terminals.

25 6. The retransmission control method as claimed
in claim 1, wherein the step (a) determines at least one
30 radio terminal on the basis of a quality of communications
between the information delivery apparatus and each of the
radio terminals.

A) 7. The retransmission control method as claimed
5 in claim 1, wherein the step (a) determines at least one
radio terminal on the basis of distances between the
information delivery apparatus and the radio terminals.

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8. The retransmission control method as claimed
in claim 1, wherein the step (a) determines at least one
radio terminal on the basis of directions of the radio
15 terminals from the information delivery apparatus.

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9. The retransmission control method as claimed
in claim 1, wherein the step (a) determines at least one
radio terminal on the basis of moving speeds of the radio
terminals.

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10. The retransmission control method as
claimed in claim 1, further comprising a step of changing
30 said at least one radio terminal to another radio terminal
on the basis of status of retransmission requests.

11. The retransmission control method as
claimed in claim 1, further comprising a step of changing
5 said at least one radio terminal to another radio terminal
when said at least one radio terminal terminates reception
of the multicast information.

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12. An information delivery apparatus
delivering multicast information to radio terminals
located within a service area via a radio section, said
15 comprising:

a first unit determining at least one radio
terminal permitted to be placed in retransmission control;
and

a second unit delivering, when a request for
20 retransmitting the multicast information sent by said at
least one radio terminal is received, the multicast
information to the radio terminals within the service area.

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13. The information delivery apparatus as
claimed in claim 12, wherein the first unit determines a
plurality of radio terminals to be placed in
30 retransmission control.

14. The information delivery apparatus as claimed in claim 12, further comprising a third unit changing said at least one radio terminal determined by the first unit to another radio terminal on the basis of retransmission requests.

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10 15. The information delivery apparatus as claimed in claim 14, further comprising a fourth unit managing status of retransmission requests sent by radio terminals placed in the retransmission control,
15 the third unit changing said at least one radio terminals on the basis of the status of retransmission requests managed by the fourth unit.

20 16. A radio terminal receiving multicast information from an information delivery apparatus via a radio section, said radio terminal comprising:
25 a first unit determining whether its own terminal is placed in retransmission control; and
a second unit requesting retransmission concerning the multicast information which has not been duly received in a case whether the first unit determines
30 its own terminal to be placed in retransmission control.

17. The radio terminal as claimed in claim 16,
wherein the first unit determines whether its own terminal
is placed in retransmission control on the basis of given
5 information sent by the information delivery apparatus.

10 18. The radio terminal as claimed in claim 16,
wherein the first unit determines whether its own terminal
is placed in retransmission control on the basis of a
quality of communications with the information delivery
apparatus.

15 19. The radio terminal as claimed in claim 16,
20 further comprising a third unit which corrects the
multicast information by part of the multicast information
sent by the information delivery apparatus retransmitted
in response to a request for retransmission by the second
unit when the first unit determines that its own terminal
25 is placed in retransmission control and which corrects the
multicast information by part of the multicast information
sent by the information delivery apparatus transmitted in
response to a request for retransmission by another radio
terminal when the first unit determines that its own
30 terminal is placed out of retransmission control.